# DEC STD 178-10 Design Requirements for Product Markings

**DOCUMENT IDENTIFIER:** A-DS-EL00178-10-0000 Rev A, 09-May-1991

**ABSTRACT:** This standard specifies the marking requirements for all Digital designed and external designed and supplied products (buy outs) worldwide. Requirements for 36-class labels and 74-class product markings are fully described. A layout diagram for 36-class labels shows placement, type faces, and type styles. This section provides requirements that are additional to those specified in other sections of DEC STD 178.

**APPLICABILITY:** The requirements of this standard are mandatory for design/support engineers, component engineers, and other individuals and groups involved in producing product markings of any kind for Digital designed and external designed and supplied products (buy outs). Individuals designing product markings must comply with these requirements.

**STATUS:** APPROVED 09-May-1991; use VTX SMC for current status.

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# 1 INTRODUCTION

This document describes placement, type faces, type styles, and layout required for all types of marking information used on Digital products.

This standard was developed by the Corporate Design Group (CDG), based on input from Human Factors, regulatory agencies, international standards, and product designers. Refer to *DEC STD 178-3 Digital Marking Requirements for Completed Products Intended To Be Sold* for additional information.

## 1.1 PURPOSE

This standard establishes requirements to ensure legal and uniform 36-class product labels and 74-class product markings for all Digital designed and external designed and supplied (buy-out) products worldwide. The purpose of this standard is to provide sites remote from CDG with the necessary information to produce quality product markings. For further information regarding specific marking requirements, refer to additional sections of DEC STD 178. Refer to *DEC STD 012-02 Unified Numbering Code for Part Identifier Class Codes* for additional class code information.

## 1.2 RESPONSIBILITIES

The following paragraphs provide specific responsibilities for the applicable groups.

### 1.2.1 Corporate Design Group

The CDG is responsible for developing product marking qualification requirements to ensure that Digital is protected from liability. They maintain and update product marking requirement documents such as the DEC STD 178 series. CDG provides the expertise and resources to ensure compliance with both Digital and external regulatory agency product marking and labeling requirements. CDG also provides necessary training to appropriate personnel involved with the development and design of 36-class product labels and 74-class product markings. Refer to Table 1 for CDG resources.

### 1.2.2 Engineering Group

The responsible group works with the local 36-class component engineer to select label materials, manage label suppliers, and ensure compliance with the product marking requirements.

### 1.2.3 Others

Design/support engineers, draftsmen, and manufacturing personnel who have a need for markings for Digital products or external designed and supplied products should contact their local component engineer or seek support from the resources listed in Table 1 to ensure compliance with both Digital and regulatory agency product marking and labeling requirements.

**Table 1: Corporate Design Group Resources**

| Function | Contact | DTN | ENET Node |
|---|---|---|---|
| Component Engineer | Dennis Mattson | 223-5711 | SKETCH::MATTSON |
| Domain Manager Product Labels DEC STD 178 | Frank Cornine | 223-4466 | SKETCH::CORNINE |
| 74-class Product Marking Support | James Dowse | 223-5707 | SKETCH:: DOWSE |
| Document Support and Status Coordinator | Kathy Garry | 223-5743 | SKETCH::GARRY |

## 1.3 DOCUMENTATION REQUIREMENTS—36 CLASS

All Digital products must be marked with a part number and a revision level if applicable and size allows. Refer to DEC STD 178-3 to determine applicability of revision level markings.

The product engineering group must obtain a part number by submitting a Product Label Request Package to the responsible CE. The following is a brief description of the documentation that must be provided as a part of the Product Label Request Package.

a. Automated Purchased Part Number Request Form (APNRF)

- Names the product to be labeled
- Identifies the label as new or as a modification or variation of an existing label
- Includes a detailed sketch or drawing of label showing dimensions, location of cutouts, Light Emitting Diodes (LEDs), and required information such as power ratings, regulatory markings, and symbols. Refer to DEC STD 178-3 for power rating, regulatory marking, and symbol requirements.

If the APNRF identifies the label as a modification of an existing label, the responsible engineering group must also submit an Engineering Change Order (ECO) that meets the requirements of *DEC STD 100-2 Purchase Specification ECOs*.

b. Label information

- Describes surface texture and color to which the label will be affixed
- Requests CDG design and layout support, if required

When the information supplied with the APNRF and the label information meet all regulatory requirements of *DEC STD 178-3 Digital Marking Requirements for Completed Products Intended To Be Sold*, the component engineer obtains a part number.

Contact Dennis Mattson, DTN: 223-5711, for more detailed information.

### 1.4 DOCUMENTATION REQUIREMENTS—74-CLASS ARTWORK

These requirements apply to artwork generated for the following processes.

- Pad printing
- Silkscreening
- Injection molding

Refer to heading 7 for additional information on injection moldings.

Note that CDG does not participate in obtaining a 74-class part number. The responsible group must obtain the part number by processing an APNRF, which can be accessed by Specifications on Computer (SPOC).

To obtain approval of 74-class artwork, the responsible group is required to provide to the responsible component engineer a copy of the approved APNRF with part number assigned along with the following additional information.

a. Copy of the 74-class part mechanical print

b. Detailed description of marking information such as product name, regulatory approval marks and symbols, and the location of the marking if known

To modify existing artwork, the responsible group must supply a copy of the first issue ECO.

## 2 PREPARATION OF 36-CLASS PURCHASE SPECIFICATION

Once the part number is assigned, the label artwork and the Purchase Specification are created based on the label information and information provided with the APNRF. The component engineer coordinates the preparation of the Purchase Specification and the label artwork.

The Purchase Specification must comply with *DEC STD 055-0 Requirements for Purchase Specifications*.

All labels must be procured through the suppliers specified in the Corporate Qualified Vendor List (QVL). Labels that require regulatory approvals, such as those containing UL or CSA information, must be procured through QVL suppliers who are approved by the regulatory agencies.

Contact Dennis Mattson, DTN: 223-5711, for additional information regarding preparation of the Purchase Specification and label artwork.

## 3 QUALITY OF ARTWORK

The following requirements apply to artwork for 36-class product labels and 74-class product markings.

a. Labels must be phototypeset by a system that uses an optical light to burn the image on resin-coated paper or film.

b. For original artwork, the typesetting process must produce a minimum of 1200 dots per inch.

**NOTE**

**Examples of phototypesetting systems that meet these requirements are Linotronic 300™ or Compugraphic® Selectset 5000.**

## 4 TYPOGRAPHY

The following typography requirements apply to titles and text appearing on 36-class product labels and 74-class product markings. Figure 1 shows a sample 36-class layout.

a. Use the following type faces and styles for the product marketing name. Examples of product marketing names are DECBridge 500, VAXstation 2000, or DECwriter.

- Type faces

  Garamond #3
  Garamond Old Style (font by Mergenthaler)
  Garamond 100 (font by Compugraphic)

- Styles

  Regular
  Italic
  Bold
  Bold italic

b. For secondary text on labels, use Helvetica type face in one of the following styles.

- Regular
- Italic
- Condensed
- Bold
- Bold italic
- Bold condensed

c. For statements such as the FCC compliance statement shown in Figure 1 or other entries, use Helvetica type face, regular style.

d. For captions such as *SN*, *V~*, *A*, *Hz*, *W*, or *Model*, use Helvetica type face bold style.

e. Set all text in upper/lower case (initial caps and lower case). Text must be flush left and ragged right.

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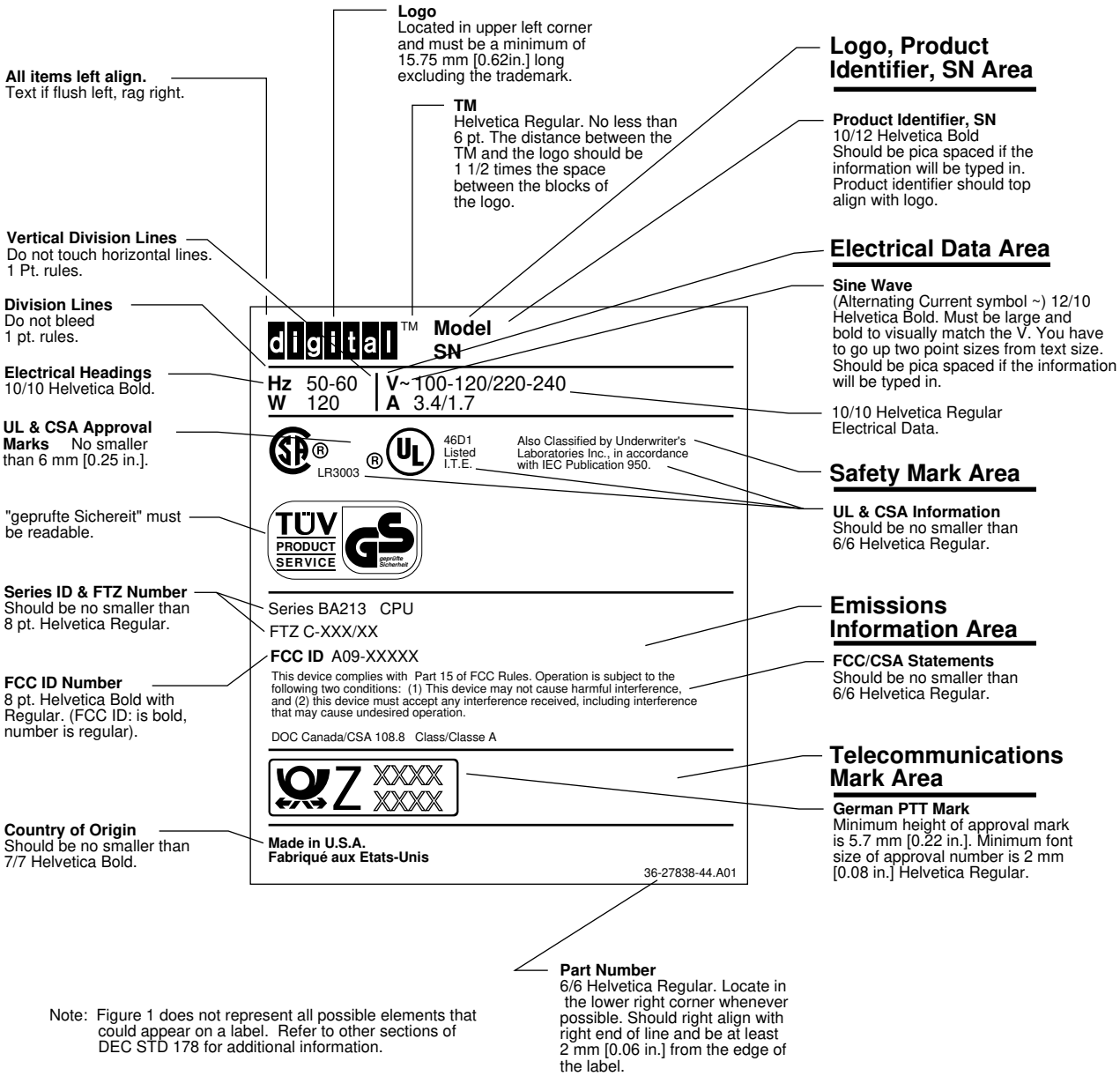
™ Linotronic 300 is a trademark of Mergenthaler Linotype Company.

® Compugraphic is a registered trademark of Compugraphic Corporation.

## Figure 1: Sample Layout Diagram for 36-class Labels


Logo
Located in upper left corner and must be a minimum of 15.75 mm [0.62in.] long excluding the trademark.
All items left align.
Text if flush left, rag right.
TM
Helvetica Regular. No less than 6 pt. The distance between the TM and the logo should be 1 1/2 times the space between the blocks of the logo.
Logo, Product Identifier, SN Area
Product Identifier, SN
10/12 Helvetica Bold
Should be pica spaced if the information will be typed in. Product identifier should top align with logo.
Vertical Division Lines
Do not touch horizontal lines.
1 Pt. rules.
Electrical Data Area
Sine Wave
(Alternating Current symbol ~) 12/10 Helvetica Bold. Must be large and bold to visually match the V. You have to go up two point sizes from text size. Should be pica spaced if the information will be typed in.
Division Lines
Do not bleed
1 pt. rules.
digital™ Model
SN
Electrical Headings
10/10 Helvetica Bold.
Hz 50-60
W 120
V~ 100-120/220-240
A 3.4/1.7
10/10 Helvetica Regular
Electrical Data.
UL & CSA Approval Marks No smaller than 6 mm [0.25 in.].
LR3003
46D1
Listed
I.T.E.
Also Classified by Underwriter's Laboratories Inc., in accordance with IEC Publication 950.
Safety Mark Area
UL & CSA Information
Should be no smaller than 6/6 Helvetica Regular.
"geprufte Sichereit" must be readable.
TÜV PRODUCT SERVICE
Series ID & FTZ Number
Should be no smaller than 8 pt. Helvetica Regular.
Series BA213 CPU
FTZ C-XXX/XX
Emissions Information Area
FCC ID A09-XXXXX
FCC ID Number
8 pt. Helvetica Bold with Regular. (FCC ID: is bold, number is regular).
This device complies with Part 15 of FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.
FCC/CSA Statements
Should be no smaller than 6/6 Helvetica Regular.
DOC Canada/CSA 108.8 Class/Classe A
Telecommunications Mark Area
FTZ XXXX XXXX
German PTT Mark
Minimum height of approval mark is 5.7 mm [0.22 in.]. Minimum font size of approval number is 2 mm [0.08 in.] Helvetica Regular.
Country of Origin
Should be no smaller than 7/7 Helvetica Bold.
Made in U.S.A.
Fabriqué aux Etats-Unis
36-27838-44.A01
Part Number
6/6 Helvetica Regular. Locate in the lower right corner whenever possible. Should right align with right end of line and be at least 2 mm [0.06 in.] from the edge of the label.

Note: Figure 1 does not represent all possible elements that could appear on a label. Refer to other sections of DEC STD 178 for additional information.

## 5 COLORS

Label color must be the same or in contrast to the color of the product on which it is to be affixed. Refer to the appropriate section of *DEC STD 092 Finish and Color Standard - Introduction and General Requirements* for label color specifications. Final color selection shall be decided by the responsible design department.

## 6 LAYOUT FOR 36-CLASS PRODUCT LABELS

Figure 1 is an example of the layout for electrical data and regulatory labels. Because each label has unique size and layout requirements, use the diagram as a reference only for the general appearance and layout of 36-class product labels. All of the information shown in Figure 1 may not apply to every label, and some items cannot be used together on the same label. The sample diagram conforms to DEC STD 178-3 requirements.

Labels shall be divided into sections by 1 point lines whenever possible. Each section shall contain related items. For example, electrical ratings (Hz, W, V~, A) shall appear in one section, agency approvals such as UL, CSA, GS, and other safety marks in a second section, and emissions information such as FCC compliance statements and FTZ registration number in a third section. Vertical division lines are permitted, but they shall not touch the horizontal lines.

The following are requirements pertaining to the information contained in each area identified in Figure 1.

a. Logo, Model, Serial Number Area

- Digital logo—The Digital logo must be located in the upper left corner of the label. The trademark (TM) symbol must be located next to the upper right corner and aligned with the top of the logo. The logo must be a minimum of 15.75 mm (0.62 inch) long, excluding the trademark symbol.
- Model and Serial Number (SN)—Product identifier markings such as MODEL and SN (Serial Number) shall not be followed by a colon.

b. Electrical Data Area—Refer to Figure 1.

c. Safety Mark Area

- All Canadian Standards Association (CSA) and Underwriter's Laboratories (UL) logos must be a minimum of 6.35 mm (1/4 inch) in diameter.
- The CSA and UL logos require the registered trademark (R) symbol, which must be no smaller than 1.19 mm (3/64 inch). The registered mark on the UL logo can be placed outside of the circle only if the circle is less than 9.52 mm (3/8 inch) in diameter. The mark must appear inside the circle if the diameter is 9.52 mm (3/8 inch) or greater.
- When using the "Listed" UL logo, the control number "708A" shall be placed at the two o'clock position relative to the mark, and the required statement shall appear on the following line.

d. Emissions Information Area—Refer to Figure 1.

e. Telecommunications Mark Area—Refer to Figure 1.

f. Part Number—The 36-class part number should be placed in the lower right corner and set in 6 point Helvetica regular.

g. Country of Origin—Country of Origin should be set in 7 point Helvetica bold type. Refer to *DEC STD 178-3 Digital Marking Requirements for Completed Products Intended to Be Sold*.

It is recommended that safety-related words such as **Danger**, **Warning**, and **Caution** shall appear in bold letters and shall be no less than 2.77 mm (0.1094 inch) in height. Refer to *DEC STD 178-7 Translations* for translated statements pertaining to safety, warning, and other hazard messages.

## 7 74-CLASS MOLDED PRODUCT MARKING REQUIREMENTS

The following are the artwork requirements for molded parts.

a. Molded parts require camera-ready artwork, which usually includes the location of information to be molded. The actual artwork for the part must be at least 2:1 scale, however, dimensions are based on a 1:1 scale.

b. The minimum stroke width of characters must be 0.38 mm (0.015 inch) at 1:1 size, except when paragraphs of information are being etched and will not be hot stamped. In this case, etching may be done with 0.25 mm (0.010 inch) stroke widths and depths as shallow as 0.1 mm (0.004 inch).

c. The space between the closest points of two adjacent characters must be at least 0.38 mm (0.015 inch) at 1:1 size.

d. Molded characters are typically 0.51 mm +0.000 mm -0.13 mm (0.020 inch + 0.000 inch -0.005 inch) in depth. At these tolerances this depth allows clean hot stamping and reduces excessive shadowing. Depths can vary according to size of part but should never be less than 0.38 mm (0.015 inch) if the parts are to be hot stamped.

## 8 CONTROL PANEL MARKINGS

The CDG is required to participate in developing markings and labels for control panels that are not customer specific. Their input is required to enhance the functionality and aesthetics of the panels and to help maintain consistency across all Digital product lines. Contact Dennis Mattson, DTN: 223-5711, for support.

# APPENDIX A REFERENCED DOCUMENTS

## A.1 EL-Class Digital Documents

| EL-Class Number | Document Title |
|---|---|
| EL-00012-02 | *DEC STD 012-2 Unified Numbering Code for Part Identifier Class Codes* |
| EL-00055-00 | *DEC STD 055-0 Requirements for Purchase Specifications* |
| EL-00092-00 | *DEC STD 092-0 Finish and Color Standard - Introduction and General Requirements* |
| EL-00100-02 | *DEC STD 100-2 Purchase Specification ECOs* |
| EL-00178-00 | *DEC STD 178-0 Digital Identification Marking Requirements - Introduction* |
| EL-00178-03 | *DEC STD 178-3 Digital Marking Requirements for Completed Products Intended to Be Sold* |
| EL-00178-07 | *DEC STD 178-7 Translations* |

Use VTX SMC to order copies of EL-class documents from Standards and Methods Control. Send distribution questions to JOKUR::SMC or call DTN: 234-4423.

## A.2 Other Digital Documents

| Document Number | Document Title |
|---|---|
| | *Company Identity Manual* |

## A.3 ORDERING INFORMATION

The *Company Identity Manual* can be ordered by providing your full name, badge number, and mail stop to the following office.

Administrative Secretary
Corporate Identity Group
PKO3-1/M88
DTN: 223-2459
Email: @PKO::PHILLIPS

# APPENDIX B RELATED DOCUMENTS

## B.1 EL-Class Digital Documents

| EL-Class Number | Document Title |
|---|---|
| EL-00156-00 | *DEC STD 156-0 Introducing New Purchased Parts and Maintaining Purchased Parts Information: Standard Procedures* |
| EL-00178-02 | *DEC STD 178-2 Digital Marking Requirements for Subassemblies: Field Replaceable Units (FRU) and Non-Field Replaceable Units* |
| EL-00178-05 | *DEC STD 178-5 Marking Symbology* |

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